

REMARKS

I. Status of the Application

Claims 1-13 and 31-33 are pending in this application. Claims 1, 12, and 31-33 are rejected under 35 U.S.C. § 103(a) over JP 11-250917 A (JP '917) in view of U.S. Patent No. 4,233,833 to Balinski ("Balinski"). Claims 10 and 11 are rejected under 35 U.S.C. § 103(a) over JP '917 in view of Balinski as applied to claim 1 and in further view of U.S. Patent No. 6,261,710 to Marianowski ("Marianowski"). Claim 13 is rejected under 35 U.S.C. § 103(a) over JP '917 in view of Balinski and U.S. Pat. No. 4,514,475 to Mientek ("Mientek"). Claims 1, 10-12, and 31-33 are rejected under 35 U.S.C. § 103(a) over Marianowski in view of JP '917 and Balinski. Claim 13 is rejected under 35 U.S.C. § 103(a) over Marianowski in view of JP '917, Balinski, and Mientek.

Claims 2-9 are objected to as being dependent upon a rejected base claim. The Office Action states that claims 2-9 would be allowable if rewritten in independent form, including all the limitations of the base claim and any intervening claims.

II. Claims 1, 12, and 31-33 Are Non-Obvious over JP '917 in View of Balinski

Claims 1, 12, and 31-33 have been rejected under 34 U.S.C. § 103(a) over JP '917 in view of Balinski. Applicant respectfully traverses this rejection.

Initially, Applicant notes that U.S. Patent No. 6,096,145 to Pandey ("Pandey") appears to be the U.S. equivalent to JP '917. Pandey claims priority from the provisional application 60/069,968, filed December 18, 1997, which is the same priority application and date that JP '917 claims.

JP '917 teaches roll bonding multi-layered sheet metal. The sheet has ribs that extend completely to the end of the sheet, as seen in Figs. 4-5. Roll-formed ribs extend completely to the end of the sheet because tremendous distortions would occur if the ribs terminate short of the ends of the sheet. Balinski discloses using rollers or dies to form a corrugated sheet, which is then flattened to partially or completely remove the corrugations, thereby forming a substantially wider sheet.

The combination of JP '917 and Balinski fails to disclose a method of manufacturing a segmented fuel cell bipolar separator plate including forming a pattern on a central portion of a sheet including ribs, with the central portion positioned between a first outer portion and a second opposed outer portion, the first and second outer portions being free of ribs and positioned at opposed ends of the ribs, as required by independent claim 1.

The ribs of JP '917 extend fully to the end of the sheet, with no outer portions free of ribs formed at the end of the ribs. Balinski, on the other hand, shows outer portions free of ribs, but which are formed along the sides of the corrugations, not at their opposed ends.

Accordingly, the rejection is improper and should be withdrawn.

III. Claim 10 and 11 Are Non-Obvious over JP '917 in View of Balinski and Marianowski

Claims 10 and 11 have been rejected under 35 U.S.C. § 103(a) over JP '917 in view of Balinski and Marianowski. Marianowski is cited as disclosing providing a nested separator arrangement in a dual undulated sheet separator. Applicant respectfully traverses this rejection.

Marianowski, fails to cure the defects of the primary references. That is, Marianowski fails to disclose or make obvious a method of manufacturing a segmented fuel cell bipolar separator plate including forming a pattern on a central portion of a sheet including ribs, with the central portion positioned between a first outer portion and a second opposed outer portion, the first and second outer portions being free of ribs and positioned at opposed ends of the ribs, as required by independent claim 1, from which claims 10 and 11 depend.

Accordingly, the rejection is improper and should be withdrawn.

IV. Claim 13 Is Non-Obvious over JP ‘917 in View of Balinski and Mientek

Claim 13 has been rejected under 35 U.S.C. §103(a) as being unpatentable over JP ‘917 in view of Balinski and Mientek. Mientek is cited as disclosing folding the edges of a fuel cell separator. Applicant respectfully traverses this rejection.

Mientek, fails to cure the defects of the primary references. That is, Mientek fails to disclose or make obvious a method of manufacturing a segmented fuel cell bipolar separator plate including forming a pattern on a central portion of a sheet including ribs, with the central portion positioned between a first outer portion and a second opposed outer portion, the first and second outer portions being free of ribs and positioned at opposed ends of the ribs, as required by independent claim 1, from which claim 13 depends.

Accordingly, the rejection is improper and should be withdrawn.

V. Claims 1, 10-12 and 31-33 Are Non-Obvious over Marianowski in View of JP '917 and Balinski

Claims 1, 10-12 and 31-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentably obvious over Marianowski in view of JP '917 and Balinski. Applicant respectfully traverses this rejection.

As noted above with respect to claim 10, the combination of Marianowski, JP '917 and Balinski fails to disclose or make obvious a method of manufacturing a segmented fuel cell bipolar separator plate including forming a pattern on a central portion of a sheet including ribs, with the central portion positioned between a first outer portion and a second opposed outer portion, the first and second outer portions being free of ribs and positioned at opposed ends of the ribs, as required by independent claim 1.

Accordingly, the rejection is improper and should be withdrawn.

VI. Claim 13 Is Non-Obvious over Marianowski in View of JP '917, Balinski and Mientek

Claim 13 stands rejected under 35 U.S.C. § 103(a) over Marianowski in view of JP '917, Balinski, and Mientek. Mientek is cited as disclosing folding the edges of a fuel cell separator. Applicant respectfully traverses this rejection.

Mientek, fails to cure the defects of the primary references. That is, Mientek fails to disclose or make obvious a method of manufacturing a segmented fuel cell bipolar separator plate including forming a pattern on a central portion of a sheet including ribs, with the central portion positioned between a first outer portion and a second opposed outer portion, the first and second outer portions being free of ribs and positioned at opposed ends of the ribs, as required by independent claim 1, from which claim 13 depends.

Accordingly, the rejection is improper and should be withdrawn

VII. Allowable Subject Matter

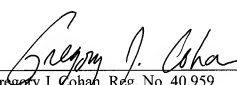
Applicant thanks the Examiner for the indication that claims 2-9 would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Since claim 1 is believed to be allowable in its present form, as discussed above, claims 2-9, which depend from claim 1, are believed to be allowable in their present form.

VIII. Conclusion

Having addressed all outstanding issues, Applicant respectfully requests reconsideration and allowance of all pending claims. To the extent the Examiner believes that it would facilitate allowance of the case, the Examiner is requested to telephone the undersigned at the number below. The Commissioner is hereby authorized to apply any charges or credits to Deposit Account No. 19-0733.

Respectfully submitted,

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